

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1 – 2. (Cancelled)

3. (Currently amended) A method for optimizing power for a rail vehicle during at least a portion of a trip making use of time reserves that are included when planning the trip comprising:

determining time available for the portion of the trip;

identifying a function to determine efficiency for the vehicle as a function of an operating point of the vehicle; and

calculating a travel mode for the portion of the trip, wherein the function is used to calculate the travel mode to minimize power required by the vehicle to travel over the portion of the trip in the time available.

4. (Cancelled)

5. (Previously presented) The method of claim 3, wherein the efficiency for the vehicle is determined as a function of tractive force or vehicle speed or temperature.

6. (Previously presented) The method of claim 3, wherein the efficiency for the vehicle is determined as a function of tractive force and vehicle speed.

7. (Cancelled)

8. (Previously presented) The method of claim 3, wherein each portion is defined as having a maximum speed; and
the travel mode is calculated so that the vehicle does not exceed the maximum speed.

9. (Currently amended) The method of claim [7]6, wherein each portion is defined as having a maximum speed; and
the travel mode is calculated so that the vehicle does not exceed the maximum speed.

10. (Cancelled)

11. (Currently amended) A method for optimizing power for a rail vehicle during at least a portion of a trip making use of time reserves that are included when planning the trip comprising:

determining time available for the portion of the trip;
identifying a function to determine power loss for the vehicle as a function of an operating point of the vehicle; and
calculating a travel mode for the portion of the trip, wherein the function is used to calculate the travel mode to minimize power required by the vehicle to travel over the portion of the trip in the time available.

12. (Cancelled)

13. (Previously presented) The method of claim 11, wherein the power loss for the vehicle is determined as a function of tractive force or vehicle speed or temperature.

14. (Previously presented) The method of claim 11, wherein the power loss for the vehicle is determined as a function of tractive force and vehicle speed.

15. (Cancelled)

16. (Previously presented) The method of claim 11 wherein each portion is defined as having a maximum speed; and
the travel mode is calculated so that the vehicle does not exceed the maximum speed.

17 - 22. (Cancelled)

23. (Currently amended) A method for the energy optimization of a rail vehicle making use of time reserves, which are included when planning a timetable, the method comprising:

determining a multi-dimensional characteristic diagram of a vehicle operating point dependency of power loss on at least tractive force and vehicle speed;
dividing the journey route into several sections each defined by a constant maximum speed;
minimizing an input energy to the vehicle with the help of an optimization algorithm to achieve an energy-saving driving mode, whereby the operating point dependency of the

power loss is taken into account in such a way that within a section, the tractive force is varied as a function of the speed.

24. (Previously presented) The method according to claim 23, wherein the multi-dimensional characteristic diagram is three dimensional

25. (Previously presented) The method according to claim 23, wherein the consideration of the operating point dependency of the power loss further depends on temperature.

26. (Previously presented) The method according to claim 23, whereby within the section a reducing acceleration results which blends smoothly into braking.